

## Recovery Plan Action Status

**Plan Name:** Draft Recovery Plan for Listed Species of the Rogue Valley Vernal Pool and Illinois Valley Wet Meadow Ecosystems

**Plan Status:** Draft

**Plan Date:** 22-Sep-06

**Lead Agency:** USFWS

**Lead Office:** Oregon Fish And Wildlife Office

(503)  
231-6179 )

| Species  | Action Priority # | Action # | Action Description                             | Action Status       | Est. Initiation Date | Est. Completion Date | Responsible Parties   | Work Type                      | Labor Type                  | Action Comments   |
|--|-------------------|----------|--|---------------------|----------------------|----------------------|---|--------------------------------|-----------------------------|---|
| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenei), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralliacarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 2                 | 1.1.1    | Develop standardized site assessment guidance. | Ongoing Not Current | FY 2005              |                      | USFWS Region 1, Oregon Department of State Lands, Rogue Valley Council of Governments | Research: Habitat Requirements | Labor type not yet selected | This work began before draft recovery plan was completed. Not attempted in 2010. This work will be completed by a partnership of wetland consultants and various agencies. Currently (2011) a vernal pool function and value assessment model has been completed for the Oregon vernal pool areas and it undergoing revision and testing. |

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| Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Greene's popcornflower (Plagiobothrys greenei) | 1                 | 1.1.4    | Perform site and species assessments for Illinois Valley wet meadow areas. | Ongoing Current | FY 2007              |                      | Oregon Department of Agriculture, USFWS Region 1, Bureau of Land Management | Research: Population Surveys | Labor type not yet selected | A species assessment for the desert parsley (lomatium) is performed at three populations annually on BLM lands in the Illinois Valley. TNC performed Lomatium cookii surveys at Whetstone Savanna Preserve and L. floccosa ssp. grandiflora at Rogue Plains Preserve in 2010. |

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| Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Greene's popcornflower (Plagiobothrys greenei)  | 2                 | 2.2.4.1  | Complete a Resource Assessment for Oregon Parks Department River Forks State Park.     | Ongoing Current | FY 2008              |                      | USFWS Region 1, Oregon Parks and Recreation Department  | Management: Planning       | Internal Field Assistance, Species Expert | Site visits were made by OPRD staff in 2008 and 2009 evaluating threats and developing prescription activities. |

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| Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Greene's popcornflower (Plagiobothrys greenei)  | 2                 | 2.2.4.2  | Develop Lomatium cookii management plan for River Forks State Park.   | Ongoing Current | FY 2009              |                      | USFWS Region 1, Oregon Parks and Recreation Department   | Management: Predator and Competitor Control | Labor type not yet selected | For FY 2010 in progress.   |
| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenei), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 2                 | 2.2.5    | Develop species management plan for Oregon Department of Transportation Special Management Areas in Jackson and Josephine counties. | Ongoing Current | FY 2009              |                      | Oregon Department of Transportation, U.S. Federal Highway Administration, USFWS Region 1, Jackson County, Oregon, Josephine County | Management: Planning                        | Species Expert              | ODOT is developing a Habitat Conservation Plan for all their SMAs in Oregon. |

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| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), coral seeded popcornflower (Plagiobothrys figuratus ssp. corallicarpus) | 2                 | 4.4      | Study pollination vectors between and among populations. | Not Started   |                      |                      | Oregon Department of Agriculture, USFWS Region 1, Bureau of Land Management, The Nature Conservancy, Southern Oregon University | Work type not yet selected | Labor type not yet selected |                 |

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|--|-------------------|----------|--|---------------|----------------------|----------------------|---|----------------------------|-----------------------------|-----------------|
| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), coral seeded popcornflower (Plagiobothrys figuratus ssp. corallicarpus) | 2                 | 4.5      | Investigate role of mammals, insects, birds, and wind as seed dispersal vectors. | Not Started   |                      |                      | Oregon Department of Agriculture, USFWS Region 1, Bureau of Land Management, The Nature Conservancy, Southern Oregon University | Work type not yet selected | Labor type not yet selected |                 |

| Species   | Action Priority # | Action # | Action Description   | Action Status   | Est. Initiation Date | Est. Completion Date | Responsible Parties  | Work Type  | Labor Type                          | Action Comments   |
|---|-------------------|----------|--|-----------------|----------------------|----------------------|--|--|-------------------------------------|---|
| Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Vernal pool fairy shrimp (Branchinecta lynchi) | 2                 | 4.6      | Evaluate techniques to reduce impacts of woody plant succession. | Ongoing Current | FY 2010              | FY 2013              | Oregon Department of Transportation, Bureau of Land Management, The Nature Conservancy | Management: Habitat Maintenance and Manipulation | Contract, Internal Field Assistance | The Service partially funded BLM to conduct woody vegetation management and TNC is researching methods to control woody vegetation at the ODOT vernal pool bank. This is considered a great threat in Illinois Valley Lomatium cookii populations. FWS provided funding in 2010 for Medford BLM to adaptively manage tree and shrub succession. |



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| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenel), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 3                 | 4.7      | Conduct research on prescribed burning, mowing, and native planting on introduced annual grasses. | Ongoing Current |                      |                      | USFWS Region 1      | Work type not yet selected | Labor type not yet selected | TNC, BLM, and BOR are at different stages of investigating these management techniques. |

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|--|-------------------|----------|--|---------------|----------------------|----------------------|---------------------|----------------------------|-----------------------------|--|
| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 2                 | 4.8      | Conduct research on appropriate grazing practices. | Not Started   |                      |                      | USFWS Region 1      | Work type not yet selected | Labor type not yet selected | In 2010 NRCS will fund a private landowner to establish rotational grazing areas on Loco and Lifgr occupied plant habitat to refine grazing methods. This information will greatly assist with this action item. |

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|--|-------------------|----------|--|-----------------|----------------------|----------------------|---|--------------------|------------------|--|
| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 1                 | 4.9      | Research genetic and morphologic traits among individuals and populations. | Ongoing Current | FY 2008              |                      | Oregon Department of Agriculture, USFWS Region 1, Bureau of Land Management, The Nature Conservancy, Southern Oregon University | Research: Genetics | Graduate Student | FWS has funded genetic work to be accomplished for large-flowered woolly meadowfoam. |

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|--|-------------------|----------|--|---------------|----------------------|----------------------|---------------------|----------------------------|-----------------------------|-----------------|
| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 2                 | 5.1      | Prepare and implement an outreach strategy for promote stakeholder involvement in the implementation of the recovery plan. | Not Started   |                      |                      | USFWS Region 1      | Work type not yet selected | Labor type not yet selected |                 |

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|--|-------------------|----------|--|---------------|----------------------|----------------------|---|----------------------------|-----------------------------|--|
| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), coral seeded popcornflower (Plagiobothrys figuratus ssp. corallicarpus) | 2                 | 5.2.1    | Create and distribute plant identification guides, guides for best management practices and habitat restoration opportunities for the species. | Not Started   |                      |                      | Oregon Department of Agriculture, USFWS Region 1, Bureau of Land Management, The Nature Conservancy | Work type not yet selected | Labor type not yet selected | Plant information sheets were distributed to the public in conjunction with public information meetings held in conjunction with critical habitat outreach efforts in 2009 and 2010. |

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| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), coral seeded popcornflower (Plagiobothrys figuratus ssp. corallicarpus) | 3                 | 5.2.2    | Participate at local wildflower and outdoor shows. | Ongoing Not Current | FY 2008              |                      | Oregon Department of Agriculture | Other: Information and Education | Graduate Student, Internal Technical Assistance | Attended Glide Wildflower Show in Glide, Oregon and spoke to attendees about Lomatium cookii and Limnanthes floccosa ssp. grandiflora. A graduate student attended the 2008 show and presented live meadowfoam plants for the public to view. |

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| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 3                 | 5.2.3    | Invite the public to assist in long term monitoring. | Not Started   |                      |                      | USFWS Region 1, Jackson County, Oregon, The Nature Conservancy, Rogue Valley Council of Governments, Josephine County | Work type not yet selected | Labor type not yet selected |                 |

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|--|-------------------|----------|---|---------------|----------------------|----------------------|--|----------------------------|-----------------------------|-----------------|
| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 3                 | 5.2.4    | Provide schools within the area covered by the recovery plan with information about the species and recovery efforts. | Not Started   |                      |                      | USFWS Region 1, Bureau of Land Management, Jackson County, Oregon, The Nature Conservancy, Rogue Valley Council of Governments, Josephine County | Work type not yet selected | Labor type not yet selected |                 |



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| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 2                 | 5.3      | Identify key stakeholders with potential interest in recovery planning for these species. | Ongoing Current |                      |                      | Oregon Department of Agriculture, USFWS Region 1, Bureau of Land Management, The Nature Conservancy, Rogue Valley Council of Governments | Work type not yet selected | Labor type not yet selected | We have been involved with a vernal pool stakeholder committee that discusses conservation of vernal pool systems primarily in Jackson County. We have assisted in meetings and are always looking for new stakeholdings to participate in committee discussions or a conservation easement opportunities. |

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| Dwarf meadowfoam (Limnanthes floccosa ssp. pumila), Tehama pincushionplant (Navarretia heterandra), Large-flowered woolly Meadowfoam (Limnanthes floccosa ssp. grandiflora), Cook's lomatium (Lomatium cookii), slender meadowfoam (Limnanthes gracilis ssp. gracilis), Henderson's bentgrass (Agrostis microphylla hendersonii), Austin's popcornflower (Plagiobothrys austiniae), Greene's popcornflower (Plagiobothrys greenii), Sculptured popcornflower (Plagiobothrys glyptocarpus var. glyptocarpus), hairy water flea (Dumontia oregonensis), coral seeded popcornflower (Plagiobothrys figuratus ssp. coralllicarpus), Vernal pool fairy shrimp (Branchinecta lynchi) | 1                 | 5.4      | Coordinate with stakeholders in the development of management plans and conservation easements. | Ongoing Current | FY 2008              |                      | Oregon Department of Agriculture, USFWS Region 1, Bureau of Land Management | Management: Land Use | Internal Technical Assistance | FWS has been regularly attending stakeholder meeting to plan development and conservation in the Agate Desert/White City area of Jackson County, Oregon. The Service contributed funding to enable the vernal pool stakeholder committee to continue meeting in 2010 and 2011. In 2011, the formal programmatic vernal pool conservation plan and consultation was signed which will streamline the consultation process. |